

IN THE CLAIMSListing of Claims:

Claim 1 (Currently Amended): A method for affixing two substrates to one another using a non-epoxy glue sealant containing photoinitiators, the method comprising the steps of: applying a non-epoxy glue sealant along an outer periphery of a first substrate; placing a second substrate onto the first substrate containing the non-epoxy glue sealant; and

irradiating the glue sealant with laser beam radiation to polymerize the sealant by directing light onto one of the first or the second substrate that is at least partially transparent to the laser beam, the laser beam consisting of one of a continuous wave laser[[,]] and a pulsed laser with a pulse duration greater than 21 ns, and a pulsed laser with a pulse duration less than 19 ns.

Claim 2 (Original): The method of claim 1, wherein the step of irradiating the glue sealant includes irradiating the glue sealant with laser beam radiation to polymerize the sealant by activating the photoinitiators.

Claim 3 (previously presented): The method of claim 1, wherein the step of irradiating the glue sealant includes irradiating the glue sealant with laser beam radiation that is incident onto one of the first or the second substrate, so that the laser beam radiation subtends an angle substantially normal to the first or the second substrate receiving the laser beam irradiation, the beam irradiation passing through the first or the second substrate onto the non-epoxy glue sealant.

YOR919980442US2

2 of 13

09/917,087

Claim 4 (previously presented): A method for affixing two substrates to one another using a non-epoxy glue sealant containing photoinitiators, the method comprising the steps of:

applying a non-epoxy glue sealant along an outer periphery of a first substrate; placing a second substrate onto the first substrate containing the non-epoxy glue sealant; and

irradiating the glue sealant with laser beam radiation to polymerize the sealant by directing light onto one of the first or the second substrate that is at least partially transparent to the laser beam,

wherein the step of irradiating the glue sealant includes irradiating the glue sealant with laser beam irradiation that is incident onto one of the first or the second substrates, so that the laser beam subtends an angle at non-normal incidence with respect to the first or the second substrate receiving the laser beam radiation, enabling the laser directed onto the first or the second substrate to pass through the first or the second substrates onto the non-epoxy glue.

Claim 5 (cancelled)

Claim 6 (Currently Amended): TheA method of claim 1 for affixing two substrates to one another using a non-epoxy glue sealant containing photoinitiators, the method comprising the steps of:

applying a non-epoxy glue sealant along an outer periphery of a first substrate;  
placing a second substrate onto the first substrate containing the non-epoxy glue sealant; and

irradiating the glue sealant with laser beam radiation to polymerize the sealant by directing light onto one of the first or the second substrate that is at least partially transparent to the laser beam, the laser beam consisting of one of a continuous wave laser and a pulsed laser with a pulse duration greater than 21 ns,

wherein the step of irradiating the glue sealant includes irradiating the glue sealant with laser beam irradiation from a continuous (CW) laser.

Claim 7 (cancelled):

YOR919980442US2

3 of 13

09/917,087

Claim 8 (previously presented): The method of claim 6, wherein the step of irradiating the glue sealant includes irradiating the glue sealant with laser beam irradiation from a continuous (CW) laser with a wavelength range 200-1500 nm.

Claims 9 – 11 (Canceled)

Claim 12 (Cancelled)

Claim 13 (Canceled)

Claim 14 (Currently Amended): TheA method of claim 12, for affixing two substrates to one another using a non-epoxy glue sealant containing photoinitiators, the method comprising the steps of:

applying a non-epoxy glue sealant along an outer periphery of a first substrate;  
placing a second substrate onto the first substrate containing the non-epoxy glue sealant; and

irradiating the glue sealant with laser beam radiation to polymerize the sealant by directing light onto one of the first or the second substrate that is at least partially transparent to the laser beam, the laser beam consisting of one of a continuous wave laser and a pulsed laser with a pulse duration greater than 21 ns

wherein the first substrate and the second substrate form a LCD (Liquid Crystal Display) panel assembled according to an ODF (One Drop Fill) method and

wherein the irradiating of the non-epoxy glue sealant with the laser beam includes providing a UV (Ultraviolet) dosage into the non-epoxy glue sealant within the LCD panel of not less than 0.02 J/cm<sup>2</sup>;

wherein the step of irradiating the non-epoxy glue sealant with a laser includes irradiating with a laser at an impingement angle off of normal to the LCD panel so as to supply a UV dosage of not less than 0.02 J/cm<sup>2</sup> under any blocking images within the LCD panel.

15 – 16. (Canceled)

YOR919980442US2

4 of 13

09/917,087

Claim 17 (Currently Amended): The method of claim 1412, wherein the step of irradiating the non-epoxy glue sealant with a laser includes irradiating with a laser to expose the photo initiators in the non-epoxy glue sealant using a back side of the LCD panel, wherein the backside of the panel contains no blocking images.

Claim 18 (Currently Amended): ~~The~~A method of claim 12 for affixing two substrates to one another using a non-epoxy glue sealant containing photoinitiators, the method comprising the steps of:

applying a non-epoxy glue sealant along an outer periphery of a first substrate;  
placing a second substrate onto the first substrate containing the non-epoxy glue sealant; and

irradiating the glue sealant with laser beam radiation to polymerize the sealant by directing light onto one of the first or the second substrate that is at least partially transparent to the laser beam, the laser beam consisting of one of a continuous wave laser and a pulsed laser with a pulse duration greater than 21 ns

wherein the first substrate and the second substrate form a LCD (Liquid Crystal Display) panel assembled according to an ODF (One Drop Fill) method and

wherein the irradiating of the non-epoxy glue sealant with the laser beam includes providing a UV (Ultraviolet) dosage into the non-epoxy glue sealant within the LCD panel of not less than 0.02 J/cm<sup>2</sup>;

wherein the step of irradiating the non-epoxy glue sealant with a laser includes irradiating with a Nd:YLF frequency tripled pulsed laser.

Claim 19 (Currently Amended): The method of claim 1412, wherein the step of assembling a first substrate and a second substrate forming a LCD panel using an ODF method with a non-epoxy glue sealant includes forming a LCD panel using an epoxy-acrylate glue sealant.

Claim 20 (Currently Amended): TheA method of claim 12 for affixing two substrates to one another using a non-epoxy glue sealant containing photoinitiators, the method comprising the steps of:

applying a non-epoxy glue sealant along an outer periphery of a first substrate;  
placing a second substrate onto the first substrate containing the non-epoxy glue sealant; and

irradiating the glue sealant with laser beam radiation to polymerize the sealant by directing light onto one of the first or the second substrate that is at least partially transparent to the laser beam, the laser beam consisting of one of a continuous wave laser and a pulsed laser with a pulse duration greater than 21 ns

wherein the first substrate and the second substrate form a LCD (Liquid Crystal Display) panel assembled according to an ODF (One Drop Fill) method and

wherein the irradiating of the non-epoxy glue sealant with the laser beam includes providing a UV (Ultraviolet) dosage into the non-epoxy glue sealant within the LCD panel of not less than 0.02 J/cm<sup>2</sup>;

wherein the step of irradiating the non-epoxy glue sealant with a laser includes irradiating with a continuous (CW) laser.

Claim 21 (Currently Amended): The method of claim 1412, wherein the step of irradiating the non-epoxy glue sealant with a laser includes irradiating with laser at a wavelength range of 200-1500nm.

Claim 22 (Currently Amended): The method of claim 1412, wherein the step of irradiating the non-epoxy glue sealant with a laser includes irradiating with a continuous laser at wavelength range 200-1500 nm.

Claim 23 (previously presented): A method for affixing two substrates to one another using a non-epoxy glue sealant containing photoinitiators, the method comprising the steps of:

applying a non-epoxy glue sealant along an outer periphery of a first substrate; placing a second substrate onto the first substrate containing the non-epoxy glue sealant; and

irradiating the glue sealant with laser beam radiation to polymerize the sealant by directing light onto one of the first or the second substrate that is at least partially transparent to the laser beam

wherein the first substrate and the second substrate form a LCD (Liquid Crystal Display) panel assembled according to an ODF (One Drop Fill) method and

wherein the irradiating of the non-epoxy glue sealant with the laser beam includes providing a UV (Ultraviolet) dosage into the non-epoxy glue sealant within the LCD panel of not less than 0.02 J/cm<sup>2</sup>, and

wherein the step of irradiating the non-epoxy glue sealant with a laser includes irradiating with at least one of a laser controlled by a servo to trace out the pattern of the non-epoxy glue sealant to deliver not less than 0.02 J/cm<sup>2</sup> to the non-epoxy glue sealant and a laser providing a beam which is directed by scanning mirrors to deliver not less than 0.02 J/cm<sup>2</sup> by directing the laser beam to trace out the pattern of the non-epoxy glue sealant.

Claim 24 (Cancelled)

YOR919980442US2

7 of 13

09/917,087